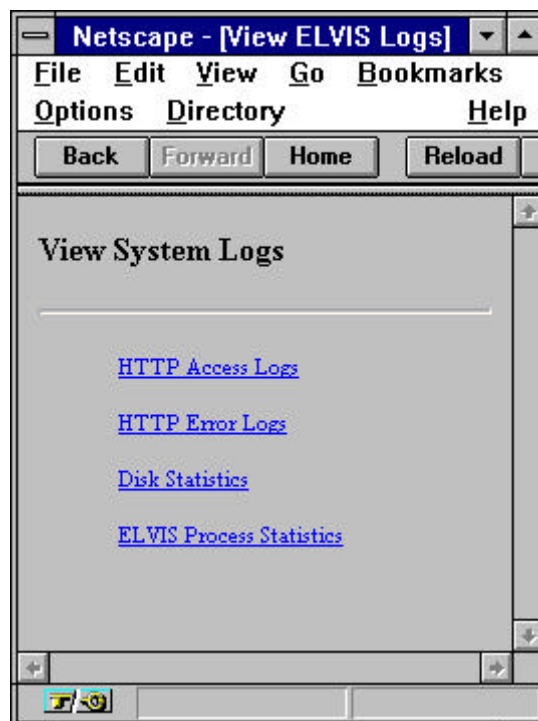


5. ELVIS MONITORING OPTIONS

The system administrator can monitor several ELVIS performance/access parameters:

- User access log
- CERN httpd error log
- Hard disk usage
- ELVIS process status

Selecting the **View System Logs** option on the system administrator home page provides the following display.



On a system running WEBSOF, additional logs may be available to view the status of this application. A garbage collection program removes log files that are more than 7 days old; the system administrator should save these off-line, if desired, to perform historical analysis of activity at the ELVIS host.

User Access Log

The access log provides a rich source of information on who is accessing ELVIS, what they are doing, and when they are doing it. The data is in the “common” format introduced by NCSA (in /h/LVIS/data/httpd.conf, the LogFormat line specifies “common”). Here are two sample lines, followed by an explanation of the fields.

```
dtc - lwhitt [06/May/1996:18:11:39 +0000] "GET /GIFS/ELVIS.GIF HTTP/1.0" 200 9416
122.0.0.101 - sysadmin [06/May/1996:18:26:43 +0000] "POST /cgi-bin/LVIS_Login HTTP/1.0" 200 505
```

Format: *host rfc931 username [date/time] "request" status bytes*
host: The host name or IP number of the remote machine
rfc931: identd-provided information about the user, “-” if none (most systems don’t run an Internet identification-service daemon, so this field is often blank)
username: The user name
date/time: The date and time of the access (the +0000 means that the time zone is GMT)
request: The verbatim URL request sent by the remote browser
status: The status code of the server’s response (e.g., 200 means OK)
bytes: The number of bytes transferred, “-” if not applicable

CERN httpd Error Log

The error log provides information on problems that occur during ELVIS operations. There are two types of entries in the error log:

- Warning and error messages generated by the Web server daemon
- Error messages generated by any running CGI programs

Here is a sample line from the error log.

```
[06/May/1996:18:11:34 +0000] [NOT AUTHORIZED] [host: dtc] /
```

This line is indicative of the httpd response when a user first accesses the ELVIS server, i.e., to begin login. Since the user has not yet entered a login name and password, the error message indicates an unauthorized access.

Here are the general types of error messages that may be contained in the error log:

- “File does not exist” or “no multi in this directory”. This indicates that someone tried to access a nonexistent URL or that the link is broken.
- “File permissions deny server access”. The server tried to retrieve a document, but it didn’t have sufficient privileges to read it.

- “Password mismatch”. This indicates that a user incorrectly entered the password. A series of these may indicate an attempt to gain unauthorized access.
- “Client denied by server configuration”. Access to a directory was restricted to certain IP addresses and someone from outside the list of allowed IPs tried to gain access. A series of these may indicate an attempt to gain unauthorized access.
- “Connection timed out”. This occurs when the remote browser breaks the connection before receiving a requested document in its entirety. While this usually means that the user pressed the STOP button, it may also indicate that your server is prematurely timing out connections.
- “Malformed header from CGI”. This is a warning that a buggy CGI program is producing bad output that the server can't interpret. Usually, there is also an error message from the program immediately before or after this entry in the log file.

Hard Disk Usage

The system administrator can view the disk usage log.

ELVIS Process Status

The system administrator can view the ELVIS process status. The following processes should be running. There may be additional “draw” modules for other map products, e.g., for CIB (Compressed Image Base) files.

```
LVIS_GetName
LVIS_GetUIC
/h/LVIS/progs/GDbm -db LVISUsers
LVIS_Parker
LVIS_ChartGrab 1
LVIS_ChartGrab 2
LVIS_ChartGrab 3
LVIS_ChartGrab 4
LVIS_TacPlot -nostart    (with UB 2.1.2.2, this process is LVIS_TrackMan -nostart)
LVIS_Cartographer
LVIS_DrawDTED -retry
LVIS_SatDraw -retry
LVIS_DrawCountries -retry
LVIS_DrawRaster -retry
LVIS_DrawCAC -retry
LVIS_DrawVector -retry
LVIS_VPFDdraw -retry
/h/LVIS/progs/httpd -r /h/LVIS/data    (the full path is /h/LVIS/data/httpd.conf)
```